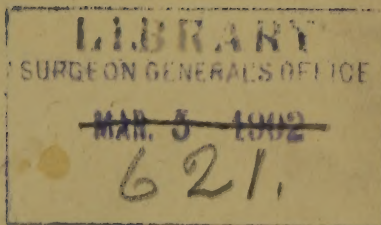


BARTON (J.R.)

Longitudinal section
of the lower jaw ~~*****~~



*Letter to the
Honorable Secretary
of the
War Department
- 1881*

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rhœa of a purulent appearance; and thirdly, the neck of the uterus was very much larger than we had ever witnessed before, and its sensibility was very great. The same general plan was adopted, and the patient was very much relieved at the end of about five months, though not altogether well.

When we examined the uterus last, its neck was reduced to its natural size, and had lost nearly all its morbid sensibility. We have had some reason to regret, that the plan which had so far relieved the disease, had not been persevered in three or four months longer, as there was every reasonable expectation that it would have proved still more beneficial.

Notwithstanding the success that attended the cases just related, as well as many more that we could mention, it is but fair to acknowledge there have been others, in which no such benefit was received, though remedies, generally speaking, were faithfully used, and every reasonable precaution taken to insure success.

Philadelphia, Nov. 1830.

ART. IV. *Longitudinal Section of the Lower Jaw for the removal of a Tumour.* By J. RHEA BARTON, M. D. one of the Surgeons of the Pennsylvania Hospital, and of the Philadelphia Alms-house Infirmary. [With a Plate.]

THE records of medicine of this country, as well as of Europe, have already afforded so many examples of the successful removal of large portions of the lower jaw, in cases where the bone had been involved in disease, as to justify and establish the practice in desperate cases; and to require that the operation should henceforth be ranked amongst those in regular surgery.

If the case about to be detailed afforded only an additional evidence of the feasibility and success of the common operation, an apology might be deemed necessary for encumbering the journal with superfluous matter, but as there is some novelty in the mode of operating, a short account will be given to illustrate it.

On the 28th of July, 1830, Isaac Duffield, a mulatto man, thirty years of age, from the State of Delaware, was admitted into the Pennsylvania Hospital, with a disease said to have originated in the gum which had been injured by the pressure of the fulcrum of the key, used in the extraction of a molar tooth of the left side of the lower jaw, eighteen months previously.

It assumed the form of a tumour, involving the gums, alveolar processes, and part of the body of the bone, and gradually increased in size until it had taken entire possession of the mouth, forcing

the tongue into the pharynx, and stretching the jaws widely apart. A large portion of the tumour also made room for itself by escaping from the cavity of the mouth, and rising upon the outside of the superior maxillary bone, thus producing great deformity by protruding the lips and left side of the face and neck. Where this loathsome mass presented itself at the mouth it was in a state of ulceration.

The tumour was of a florid red colour. It was dense, elastic, and lobulated, and in its structure partaking much of the character of the gums. From its surface was secreted large quantities of muco-purulent matter.

Upon introducing a spatula into the mouth, and putting the right cheek upon the stretch, the patient could force the tip of the tongue into view between the half arches and the side of the tumour.

As he had neither room for solid food, nor power to masticate it, his nutriment was taken in fluid form by a similar process of distending the cheek.

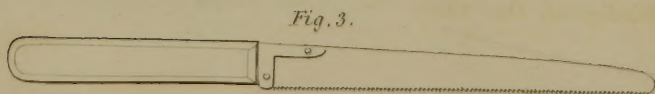
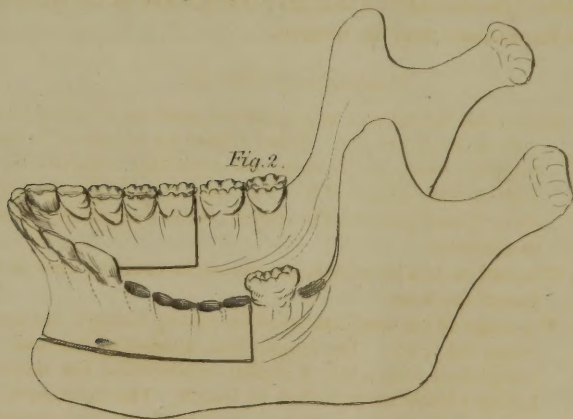
Epulis is the name assigned by writers to this species of tumour, which, though not malignant in its early stage, nor *essentially* so at any period, is said frequently to eventuate in a cancerous disease.

The peculiarity of the operation I am about to describe, consists in the *longitudinal* section of the bone, by which a *rim at the basis of the bone* was preserved to support the under lip and chin, thereby obviating the distortion of the face consequent to the usual mode of cutting out an entire piece of the bone by the perpendicular section.

Operation.—On the 4th of September, an incision was commenced over the left angle of the lower jaw, carried on a line with the under edge of the base, around to near the facial artery of the opposite side. This incision extended through the integuments and muscles of the cheek and lip, so as to open the cavity of the mouth. The under lip, towards the left commissure of the mouth, was cut through to meet the first incision at a right angle. The tumour was thus brought into view, exposing fully its connexion with the lower jaw, to the anterior and posterior surfaces of which it firmly adhered. The adhesions were detached from the anterior surface of the bone, as high from the base as it was sound. A section was then made with a saw, through the body of the bone, just below the maxillary canal, in a line parallel to the base of the jaw, and extended as far back as the roots of the last molar tooth, on the left side, and to the last but one on the right side. A perpendicular section was then made with a narrow bladed saw, between the teeth through the alveolar process, until it met at right angles the first division of the bone. The portion thus insulated contained the diseased mass. The tumour was then elevated, and its connexions with the inner surface of the bone separated. It now came away entire, exposing the body of the



Drawing half the natural size.



bone in a healthy state, except at one point on the surface, which was readily taken off with the nippers.

No blood-vessels were taken up but the left facial and right coronary arteries; the hæmorrhagy from other points ceasing spontaneously. The flap was now replaced, and the sides of the incision carefully adjusted; the lip closed with the hair lip pins, and the rest supported by interrupted sutures and adhesive plaster.

The patient did well; the wound united by the first intention, and in a short time the parts within the mouth healed over the bone. The tongue regained its natural position. The distended and flaccid lips and cheek gradually contracted to their natural dimensions, but their collapse was prevented by the rim of the jaw which had been left. The contour of the face was thus preserved, and the patient recovered the power of masticating his food with the three remaining teeth, and their antagonists of the upper jaw.

On the 9th of October following, the man was discharged from the Hospital cured, and almost incredibly free from deformity.

I have adopted an unusual mode of explaining this case. In place of giving a representation of the individual's appearance anterior and subsequent to the operation, I have preferred a delineation of the tumour placed within the bony structure as it was relatively situated.

By the former method, the nature and extent of the external deformity, and the subsequent removal of it, only would have been comprehended, which may be imagined from the preceding description, whilst from the latter a tolerably correct idea of the size and character of the tumour may be formed.

Explanation of Plate III.

Fig. 1. Represents the tumour in its relative position, adhering to, and involving the lower jaw. It had formed no adhesions to the upper maxillary bone, but its shape was somewhat regulated by contact with the inequalities of it. The tumour, in its present contracted state, (being preserved in spirits,) varies from three to five inches in diameter.

Fig. 2. The outline of a lower jaw, introduced to exhibit a view of the section of the bone.

Fig. 3. The shape of the small saw used for cutting through the alveoli between the teeth. The longitudinal division of the bone was accomplished with a saw of similar construction, but much larger, having a blade seven inches in length. This instrument, though not made for the purpose, answered perfectly; but the saw of the amputating case might have been employed.

Philadelphia, Dec. 1830.

ART. V. *Observations and Reflections on the Employment of Strychnine in the Treatment of Paralysis*. By E. GEDDINGS, M. D. Lecturer on Anatomy and Surgery, Charleston, S. C.

THE materia medica is subject to incessant revolution. Daily experience unfolds to us some new therapeutical resource, and while hundreds of new remedies, which have been issued into notice by the most extravagant encomiums, are perpetually passing into a speedy and well-merited oblivion, bountiful Providence reveals to us many invaluable properties in others, which we have been accustomed to overlook, or consider as possessing but feeble claims upon our attention. But a few years ago, and the principles upon which the efficacy of Peruvian bark and opium depends, were unknown, and those articles could not be divested of the disagreeable concomitants which necessarily attended their administration. But what are the lights of modern chemistry not capable of accomplishing? Guided by its influence, what an inestimable blessing has the ingenuity of PELLETIER, CAVENTOU, SERTUERNER, &c. conferred upon mankind, by their discovery of the active principles of these articles! a discovery scarcely less important than that of the circulation of the blood. It is, moreover, but a short time since nux vomica was suffered to moulder upon our shelves; but this neglected substance was destined to furnish, to the researches of FOUQUIER, results capable of leading to the consummation of the most important purposes. This distinguished physician has ascertained, that in nux vomica we possess a most efficient means of treating paralysis—a disease, which, under all circumstances, is exceedingly difficult to manage, and which, under our former resources, too often baffled our best directed efforts. Chemistry has, moreover, taught us, that these important properties reside, in a concentrated form, in a peculiar substance which has been designated strychnine. It is with a view of adding our feeble weight of testimony, to that which has been already furnished, in favour of the remedy in the treatment of paralysis, that the following cases have been drawn up. The results which they have furnished have tended much to heighten our faith in the efficacy of the article, and we shall feel pleased if the communication of our own experience should incite others to make trial of it under similar circumstances.

The first case we shall detail is one of hemiplegia of the whole of the left side of the body. The individual was a male, aged about fifty, who was employed as a boat hand. He was placed under our care about the 20th of July, 1829, and from all the particulars of his case

Barton J Rhea

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